

DESCRIPTIONS OF SOME NEW HESPERIIDAE FROM THE
AUSTRALIAN REGION IN THE TRING MUSEUM

By COLONEL W. H. EVANS, C.I.E., D.S.O., F.Z.S., F.E.S.

1. *Hasora buina* n.sp.

Male—Above velvet black, bases clothed with grey-green hairs: head and thorax clothed pale blue-green hairs: abdomen black. No secondary sexual characters. Wings rounded. Cilia dark brown.

Below dark chocolate with a purple flush: outer fifth of forewing and third of hindwing paler. Thorax and palpi clothed blue-grey hairs: abdomen with grey hairs. Forewing dorsum below vein 1 yellow and a small diffuse yellow patch in the centre of the outer third of the cell. On the hindwing there is a narrow yellow streak below and along vein 1 from the base to rather beyond the middle of the wing: a sharply defined small double yellow spot in the centre of the outer third of cell 1 and a similar single spot just before the end of the cell.

Expanse ($2 \times$ distance from centre of thorax to apex of forewing) 54 mm.

Female similar to the male: generally paler and rather larger.

Described from 2 males and 1 female obtained by A. S. Meek in January 1908 at "Buin, Bougainville, Solomon Islands."

The nearest ally is *H. umbrina* Mab. (= *nabroa* Swinh.) from the Celebes, which it resembles on the upperside, in size and wing contour, but the underside of *buina* is very distinct and quite different from any other *Hasora*. There is a female of *umbrina* in the R. Oberthür collection at Rennes: the forewing bears large pale yellow hyaline spots as in *anura* Den.

2. *Hasora lavella* n.sp.

Male—Above dark chocolate brown, paler basally. Head clothed dark olive green hairs: thorax of same colouring as base of wings. No secondary sexual characters. Wings produced as in most *Hasora*, viz. *alexis*. Cilia dark brown.

Below chocolate brown with a purple gloss. Clothing of palpi with the long scales yellow, the sides and short scales brown. Thorax brown: abdomen alternately brown and pale yellow. Forewing tornally yellow-brown: costa to just beyond end cell dark olive green: a narrow crescent (convex to apex) of bluish white scales, sharply defined, midway between the end of the cell and the apex, extending from vein 4 to vein 9. Hindwing crossed by a straight broad (4 mm.), pure white, sharply defined, discal band from the costa (where it is narrowed considerably) well before the apex, across the end of the cell (not entering the cell) to vein 1A well before the tornus, whence it curves to meet the dorsum at the end of vein 1B, narrowing and becoming bluish: the basal area up to the discal band is dark, non-iridescent green, of a rather unusual shade.

Expanse 60 mm.

Female as male: generally paler and rather larger.

Described from 3 males from Vella Lavella, Solomon Islands, and 1 female from Florida Island, obtained by A. S. Meek in March 1908.

The nearest allies are *proxissima* Elw. & Edw. from the Philippines, Siam, and Borneo, and *latifascia* Joie. and Talb. from New Guinea, but the peculiarly coloured underside and the apical band on the forewing below readily distinguish *lavella*.

3. *Notocrypta caerulea* n.sp.

Male—Above black with a deep but brilliant steely blue glaze. Head and thorax white spotted. Forewing crossed by a compact broad hyaline band as in the majority of *Notocrypta*, but instead of being white the band is pale shining blue: it extends from vein 1, through spaces 1, 2, base of 3, end of cell to the subcostal vein and there is a narrow white dash on the costa above the band: there is a small white dot on the disc in space 4, another in 7, and another in 8. Hindwing unmarked. Wings rounded, but the apex of the hindwing is somewhat produced and the termen is convex between veins 1B and 3. The cilia of the hindwing are narrowly white from the tornus to vein 6 and at the end of the dorsum, darkened at the end of each vein.

Below generally paler and considerably so at the apex of the forewing and on the outer third of the hindwing and along the dorsum: on the pale areas of both wings the veins are overlaid with sparse white scales. Markings of forewing and cilia of hindwing as above, but the streak on the costa of the forewing is broader. Palpi white spotted and broadly white at the sides.

Expanse 52 mm.

Female as male.

Described from 3 males and 2 females in the Tring Museum and a pair in the British Museum obtained by A. S. Meek between November 1905 and February 1905 at "Angabunga River, affluent of the St. Joseph River, British New Guinea, above 6,000 feet" (locality of type) and "Biagi, Mamberé River, British New Guinea," obtained in April 1906.

N. caerulea generally resembles the ordinary species of *Notocrypta*, but is readily distinguished by the blue glaze, the white spotted head, and the striping below. The antennae are as in *Notocrypta*, there being a few white scales below the club. The palpi are more pronounced and the third joint is more correct, rather as in *Udaspes*.

4. *Plastingia rothschildi* n.sp.

Male—Above black with a deep blue glaze. Forewing with the base below the subcostal vein broadly bright iridescent blue, extending to the middle of the wing. Hindwing with the basal third below the cell iridescent blue, clothed with bluish white hairs. Head and thorax prominently white spotted: upper part of abdomen clothed bluish white hairs. Secondary sexual characters as follows: dorsum of forewing strongly bowed: on the hindwing a large suboval patch of specialized yellow scales lying behind the origin of vein 7 and extending from mid cell to vein 8, overlying which area there is an erectile tuft of long yellow hairs springing from near the base of the cell.

Below black with a dark purple glaze and a very characteristic wing pattern. Palpi bright orange, also the centre of the abdomen: thorax white spotted. Forewing with a short orange streak at the base of the costa: a patch of pale bluish green scales near the end of the cell, continued somewhat obscurely as a streak towards the base of the cell: a rather broad crescentic (convex to apex)

band of similar scales from vein 2 near the termen to vein 9 just beyond the end of the cell: dorsum below vein 2 for a distance of two-thirds from the base denuded of scales (a secondary sexual character) leaving only a large dark central suboval patch of the ground colour. Hindwing with a short broad orange streak at the base of the costa: a very large sharply defined pale bluish white apical oval area extending from just beyond the yellow basal streak very nearly to the apex and from the lower edge of the cell very nearly to the costa: a pale bluish green submarginal band, widening dorsally, from vein 4 to the dorsum: centrally between this band and the base there is a pale bluish white spot on the dorsum.

Expanse 44 mm. Apex of forewing produced, hindwing rounded. Antennae as in *Plastingia* generally, but the apiculus is longer than usual and tends to twist round the shaft. Palpi with the third joint prominent, stout and porrect.

Female as male: with rounder wings and no secondary sexual characters.

Described from 2 males and a female obtained at Milne Bay, British New Guinea, in February 1899 by A. S. Meek.

This beautiful little species on the upperside generally resembles *P. extrusus* Hew., of which there are several specimens at Tring and in the British Museum. The underside of *P. rothschildi* is very remarkable and the secondary sexual characters are unique as far as the genus *Plastingia* is concerned. *P. extrusus* is a very variable species in respect of the hyale spotting on the forewing and the pale markings on the hindwing below: it was redescribed by Joicey and Talbot as "*Mimene basalis*" in A.M.N.H. 1916 and 1917.

5. *Plastingia papua* n.sp.

Male—Above dark brown with a strong purple gloss. Base of hindwing and body sparsely clothed golden yellow hairs and some similar hairs on the palpi. Forewing with a golden yellow band composed of four conjoined spots, arranged thus: across space 1 from mid vein 1 to base vein 2, in space 2 very nearly to the base, at the extreme base of space 3 and in the lower part of the cell behind the origin of vein 3: some obscure yellow scales towards the apex in spaces 6 and 7. Hindwing with the basal half of the costa yellow: a large circular golden yellow discal spot in spaces 4-5 and a smaller similar spot further from the margin in space 1b. Cilia dark brown. No secondary sexual characters.

Below—Forewing brown with a deep purple gloss: a yellow costal streak extending half-way along the costa from the base: a discal yellow band as above and a yellow patch in spaces 6 to 8, also some scattered yellow scales towards the termen in spaces 3, 4, and 5. Hindwing brilliant shining purple: a large suboval yellow area at the base of the costa, extending to half-way along the costa and just reaching the cell: golden yellow discal spots as above: small submarginal yellow spots from space 1A to 6 and a dash of yellow towards the base in space 1. Palpi and legs golden yellow: abdomen narrowly banded dull yellow.

Expanse 36 mm. The antennae are plain dark brown with a long apiculus as in all *Plastingia*. The third joint of the palpi is short, stout, and porrect: the palpi are very variable in this genus. The venation of the hindwing is somewhat aberrant in that the cell is very long, more than three-quarters the width of the wing. Forewing somewhat produced: hindwing rounded.

Described from 2 males from New Guinea. The type is marked "Hydrographer Mts., British N.G., 2,500 feet, Eichhorn Bros., February 1918."

The markings of the forewing resemble *P. telesinus* Mab., from the Philippines,

but the large spots on the hindwing and the brilliant purple and gold underside distinguish *P. papua* from any other species.

6. *Pirdana cyanea*, n.sp.

Male—Above dark brown, basally clothed with dark orange brown hairs. On the forewing there is a narrow, irregular, and interrupted dark brown brand from two-thirds along vein 1 to vein 4 and just beyond the cell. Cilia dark brown.

Below dark brown with a strong purple gloss. Forewing apex paler. Hindwing crossed by a broad (4 mm.) dull yellow band from the costa behind the apex to vein 1B: a diffuse and rather obscure patch of scattered pale bluish scales along the tornus in 1B. Palpi with white scales freely intermixed with the ordinary brown scales and broadly white at the sides. Thorax and abdomen with some white scaling: abdomen orange at the sides for a distance of two-thirds along from the thorax (a very unusual feature).

Expanse 48 mm. Wings produced and of the usual *Pirdana* shape, e.g. *hyela*. Antennae plain and as in *Pirdana*. Palpi with the third joint stout, rather short and erect.

Female above generally as the male, but without the brand, paler, slightly larger and wings more rounded. Below the glaze is dark indigo and on the hindwing the band is paler, wider (6 mm.), extending full width to the dorsum turning pale bluish white beyond vein 1B. Forewing with a rather broad bluish white discal band from vein 1 to vein 4 in continuation of the hindwing band: a similar irregular patch in the centre of the cell above the origin of vein 3, also a few similar scales beyond the upper apex of the cell.

The type-specimen is marked "Kapaur, low country, February 1897, W. Doherty." There are 3 more pairs from New Guinea at Tring and a few specimens in the British Museum.

P. cyanea generally resembles *P. tiacellia* Hew. from Aru and New Guinea, and has doubtless been confused with that rare species, of which there are a few specimens of both sexes at Tring and a pair (including the type) at the British Museum. *P. tiacellia* differs in having no brand, a yellow costa to the hindwing above, orange palpi below, while the band on the hindwing below turns orange at the upper end.

SOME OBSERVATIONS ON A PAIR OF SARUS CRANES
AT TRING

BY ERNST HARTERT AND FREDERICK YOUNG

LORD ROTHSCHILD is keeping a pair of Sarus Cranes, *Grus antigone antigone*, in a paddock opposite the Museum. The female is about twelve years old, while the male was only received in 1924, being a juvenile bird, probably not two years old. As is well known, all Cranes are very interesting and gentle birds in captivity, and we always enjoy to observe them.

Blauw noticed in *Grus japonensis*, St. Quintin in several other species of Cranes, that moult did not take place every year, and it is obvious that our *Grus antigone* do not moult every year, but only every second and apparently even sometimes every third year, though they seem oftener to renew the down covering part of their body under the feathers.

Our cranes are rather noisy birds, uttering, chiefly in the pairing season or when otherwise excited, their loud trumpet calls. These calls are not so deep as those of *Grus grus*, but higher, shriller. As a rule the male begins with a loud *krüüü*; immediately the female answers with a still shriller, more prolonged, drawn-out, and somewhat rolling shriek; when uttering these trumpet blasts they usually face each other, and sometimes bow to each other. They are chiefly fed on dog biscuits and get from time to time some meat and vegetables; they also catch insects, worms, etc., in their paddock. If they are given dead birds (mostly sparrows), rats or mice, in nine times out of ten they wash¹ them in water, especially when bigger, while sparrows and mice are often swallowed at once entire. Rats and moles they crush and shake until the skin comes off, or at least most of it; of birds they tear and shake tails and wings off.

Very amusing are their dances. They are rightly called dances. The birds run round the paddock, then strut about with stiff legs, bow to each other, hop into the air, tear out pieces of turf, throw them into the air, and sometimes catch them up again, and this performance is often accompanied by trumpet blasts.

In 1925 they began to pair. A nest was commenced on July 17, and the first egg laid July 20, a second on the 22. The female then began to incubate at once. The eggs were taken away on September 8; they had been unfertile.

Another nest was built from September 22, and finished the next day. The nests consisted of dry grass, dry nettle stalks, and small pieces of wood. On September 23 the first egg was laid, the second on the 27th. Again the eggs were not fertile. The male has never been sitting and the female, who seems alone to incubate, is a somewhat poor sitter, often leaving the eggs for short periods.

In 1926 a nest was hurriedly constructed on June 28, and an egg laid; the second the 30th, between eight and nine in the morning. Again the female incubated alone, and the eggs, after being incubated for forty-seven days, were taken up and found to be infertile.

¹ This "washing" is done quite deliberately, and sometimes also pieces of liver or meat are washed; it is of course impossible to say whether this is actually done in order to clean the food, or to wet it for the purpose of swallowing it more easily.

On August 29 and 30 two eggs were laid again, in a very small and carelessly constructed nest, and the female sat more irregularly and badly than before. Eggs not fertile.

In 1927, on July 8, an egg was laid on the bare ground and immediately broken and eaten by the male. A slight nest was made on the following day, and an egg laid on the 10th, a third on July 13. The female made no attempt to sit, but broke and ate both eggs. Further eggs were laid, either on the bare ground or in an apology for a nest, some outside in the paddock, some in the sleeping shelter, but all were eaten by the female, unless at once taken away.

On the day of writing, August 22, an eighth egg was laid in the sleeping-house and not eaten by the birds.

The eggs differ widely from the brown eggs of European and most other Cranes, in being white, more or less glossy, with rugous or yellowish brown, and some deeper-lying mauve or dull violet spots, mostly small and often sparse. Against the light the shell looks green. The eggs laid in Tring, as far as they could be saved, measure: 108×66 , 107×67 , 106×66 , 105×66 , 104×65.5 , 103.5×63.5 , 102.5×61 , 99.5×62.5 , and 99×66.5 mm. These eggs closely resemble those of the Australian Crane *Grus rubicunda*, but the latter are less elongated, thicker and rounder.

After writing this a ninth egg was laid on August 24 in the sleeping-house. The birds did not attempt to break these eggs and two days later the female began to incubate and set well, but the eggs were unfertile; the male never assisted and showed no desire to do so.
